

PATENT

ABSTRACT

A cable modem termination system is disclosed with flexible mapping of upstreams to downstreams and flexible mapping of downstreams to optical nodes and optical nodes to upstream receivers and the ability to add single upstreams or downstreams as needed for load balancing. Multiple downstreams can share the same upstream. Multiple receivers can be coupled to the same upstream. Monitoring of upstream performance for overperforming or underperforming modems can be carried out, and new upstreams with higher and/or lower throughput can be created to service the overperformers and/or underperformers. Modems can be grouped into logical groups with different performance levels and serviced by different upstreams or different upstream logical channels on the same upstream physical channel.

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